

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

CHAPTER 5

SEWAGE SLUDGE MANAGEMENT PROGRAM DESCRIPTION

A. INTRODUCTION

Sewage sludge (including domestic septage) use and disposal is regulated in Texas in accordance with the requirements of Title 30 Texas Administrative Code (TAC) Chapter 312. The rules were promulgated under the Texas Water Code, Chapter 5.103 and the Texas Solid Waste Disposal Act (the Act), Texas Health and Safety Code, §§361.011 and 361.024. Title 30 TAC Chapter 312 contain requirements for the use and disposal of sewage sludge which are equivalent to 40 Code Federal Regulations (CFR) Part 503 standards. The 30 TAC Chapter 312 regulations contain requirements equivalent to 40 CFR Parts 122, 123, 501 and 503.

Sewage sludge use and disposal requirements will be incorporated into TPDES municipal and industrial facilities as described in Chapter 3. Sludge only permits (facilities that do not discharge to waters of the U.S.) are required to obtain permits from the TNRCC. Sludge only permits include, but are not limited to, any person who changes the quality of a sewage sludge which is ultimately regulated under 30 TAC Chapter 312 and Part 503 (e.g., sewage sludge blenders, stabilization, heat treatment, and digestion), surface disposal site owners/operators, and sewage sludge incinerator owners/operators and domestic septage processing.

B. SLUDGE AND TRANSPORTER REVIEW TEAM

The Sludge and Transporter Review Team located in the Wastewater Permits Section of the Water Quality Division is responsible for the administrative and technical processing of sewage sludge/domestic septage beneficial use registrations and sewage sludge only permits for facilities treating domestic sewage (primarily facilities as defined in 40 CFR §122.44). The team is responsible for drafting sewage sludge

permits and registrations, providing for public notice of permits and registrations, and amending (modifying), renewing (reissuing), and revoking these authorizations, providing technical assistance to other divisions and sections of the agency, and presenting expert testimony at public hearings. Also the team is responsible for providing input to the Database and Administration Team staff to maintain computer records on all applications and permits (all entries into the Permit Compliance System (PCS) will be done by the data entry staff of the Database and Administration Team described in Chapter 6) and coordinating requests for other permit actions such as Transfers, Corrections, and Revocations in accordance with 40 CFR Part 122 as adopted by 30 TAC Chapter 305. The Team is responsible for the review of annual reports required by permits and registrations due September 1 of each year. The Team will review the reports and notify the permittee of any noted violations. If the violations are not corrected in a timely or satisfactory manner, the Team will refer the permittee to the Water Quality Team of the Enforcement Division for appropriate enforcement action. The Team is responsible for the administrative review and issuance of transporter registrations to individuals transporting sewage sludge, domestic septage, water treatment sludge, chemical toilet waste, grease trap waste and grit trap waste in accordance with the requirements of 30 TAC Chapter 312, Subchapter G. The team is also responsible for the registration and permitting of the disposal of water treatment sludge in accordance with the requirements of 30 TAC Chapter 312, Subchapter F, 30 TAC Chapter 330 and 40 CFR Part 257. The team reviews and processes Class A sewage sludge (exceptional sewage sludge quality or EQ) notifications in accordance with the requirements of 30 TAC §312.4. The team reviews and authorizes experimental beneficial land application sites in accordance with the requirements of 30 TAC §312.3(k), the scope of which is consistent with 40 CFR Part 501.1(j).

A description of the beneficial use registration process and permit process is described in detail below. A discussion of job duties for Sludge and Transporter Review Team personnel is included in Appendices and Tables pertaining to Chapter 7. Copies of the sewage sludge permit application form, land beneficial use registration form, and request to transfer a site registration are included in Appendix 5-A. All TNRCC permit

applications have been revised, as necessary, in anticipation of NPDES program assumption.

C. SEWAGE SLUDGE PROVISIONS IN WASTEWATER PERMITS

Sewage sludge use and disposal requirements will be incorporated into TPDES permits for wastewater facilities as described in Chapter 3 and Appendix 3-J. each TPDES permittee is required to monitor and analyze the quality of sewage sludge and to annually report this information along with information pertaining to the disposition of the sewage sludge. Appendix 5-B includes the reporting forms which are utilized to collect this information. Each type of sewage sludge disposition (beneficial use, surface disposal, etc.) is identified as a part of the report. TPDES permittees must report the quality for all parameters identified and limited by TNRCC rules in 30 TAC Chapter 312.

D. SEWAGE SLUDGE PERMIT AND BENEFICIAL USE REGISTRATION PROCESS

Permits and beneficial land application registrations will be consistent with State and Federal statutes and regulations, rules, guidance and policies.

1. General Considerations

The following information is generally considered in the review and preparation of sewage sludge only permits and beneficial use registrations if applicable.

- Permit or registration application
- Existing State and Federal Wastewater Permits
- Title 30 Texas Administrative Code

Chapter 281- Application Processing

Chapter 305- Consolidated Permits

Chapter 309- Effluent Standards

Chapter 311- Watershed Protection

Chapter 312- Sewage Sludge Use, Disposal, and Transportation

Chapter 313- Edwards Aquifer

Chapter 315- General Pretreatment Regulations for Existing and New

Sources of Pollution

Chapter 317- Design Criteria for Sewerage Systems

Chapter 319- General Regulations Incorporated into Permits

Chapter 330- Municipal Solid Waste

Chapter 332- Composting

- Title 40 Code of Federal Regulations

Part 122- NPDES Program

Part 123- State Program Requirements

Part 124- Procedures for Decision Making

Part 125- Criteria and Standards for NPDES

Part 136- Test Procedures for Analysis of Pollutants

Part 257- Solid Waste Disposal Regulations

Part 258- Municipal Solid Waste Landfills

Part 501- State Sludge Management Program Regulations

Part 503- Standards for the Use and Disposal of Sewage Sludge

- EPA Development Documents and Supporting Federal Registers

- EPA Toxics Criteria Documents

- EPA Guidance for Case-by-Case Permit Requirements for Municipal Sewage

Sludge

- Technical Support Documents for Sewage Sludge Use and Disposal

- Enforcement Orders

- Self-Report Data (DMRs)
- State and Federal Inspection Reports

2. Emergency Orders

In accordance with 30 TAC §305.29 the TNRCC processes and issues emergency orders regarding any activity of solid waste management within its jurisdiction. In general the process includes administrative, technical, and legal reviews, culminating in a Commission action at a public meeting. The process is also subject to public participation and hearing. An authorization may not exceed ninety (90) days in duration but may be renewed.

3. Registration for Beneficial Use of Sewage Sludge and Domestic Septage

The review of applications and beneficial use registrations by the TNRCC involves several processing steps and coordination among various groups of the agency. The overall beneficial use registration process is shown in Figure 5-1 and is discussed below. Land application for the beneficial use of sewage sludge and domestic septage is authorized by a registration issued to the person responsible for the land onto which sewage sludge or domestic septage will be applied. Site-specific requirements are incorporated as provisions of each registration to ensure compliance with 40 CFR Part 503 and 30 TAC Chapter 312.

Sewage sludge only permits will be consistent with State and Federal statutes and regulations, rules, guidance, and policies. The review of these applications by the TNRCC involves several processing steps and coordination among various groups of the agency. The overall sludge only permit process is shown in Figure 5-2 and is discussed below.

a. Application Review for Administrative Completeness

All applications for the beneficial use of sewage sludge or domestic septage are reviewed for administrative completeness. This review is completed within fourteen (14) calendar days of the receipt of an application unless the application is incomplete and additional information is necessary. If more information is requested, the applicant has up to thirty (30) days to respond. When the

application is administratively complete, a Notice of Receipt of Application and Declaration of Administrative Completeness is prepared by the team and submitted to the Office of Chief Clerk for mailing to affected landowners, county, State, and Federal officials, and other interested persons. The purpose of this notice is to provide early notification to persons who may potentially be affected by the proposed/major amended registration site.

b. Technical Review of Registrations

Once the application for registration is declared complete the application is forwarded to the Team Leader for staff assignment. Staff then conducts a detailed technical review of the application. Technical review and preparation of a draft registration is required to be completed for all applications (new, major amendments, minor amendments, renewals,) within 105 calendar days of declaring an application administratively complete. The 105 day deadline can be extended if the application is not technically complete and additional information is requested by the staff in accordance with 30 TAC §281.20.

A copy of the application is also sent to the appropriate Region Office. Depending upon available resources, Region personnel may conduct a site assessment for a new, amended, or renewal application if a site assessment has not been completed previously. The purpose of the site assessment is to verify that the information submitted in the application is correct and provide central office staff with additional information regarding the application. If a site assessment is completed, it is forwarded to the Sludge and Transporter Review Team and becomes part of the technical review of the application. Any deficiencies noted as a result of the site assessment are addressed prior to drafting a registration.

On a case-by-case basis, certain land application registration applications may be forwarded to the Groundwater Investigations Team in the Ground Water Assessments Section of the Water Quality Division for a detailed ground water impact review. Once the review is complete, a determination of groundwater impact is forwarded to technical staff for consideration.

c. Public Notice for Proposed Registrations

When the application is administratively complete, a Notice of Receipt of Application is prepared by the Sludge and Transporter Review Team and submitted to the Office of Chief Clerk for mailing to those property owners listed in the application as bordering the proposed/major amended registration site, the county judge in the county where the land application site is located and any Federal, State, or local agencies that may have issued a permit at that site or with interests at the site. The purpose of this notice is to provide early notification to persons who may potentially be affected by the proposed activity. The county judge also receives a copy of the administratively complete application for review and for public access. Once notice is sent by the Office of Chief Clerk, thirty (30) days is provided for the public to submit written comments on the proposed land application registration. The written information received is utilized by the TNRCC in determining what action to take on the application for registration, which may include actions to approve or deny an application in

whole or in part, deny with prejudice, suspend the authority to conduct an activity for a specified period of time, or amend or modify the proposed activity requested by the applicant. A written response to comments is developed by the staff.

d. Decision on Registration Applications

Once all the technical information has been received and the public notice requirements have been satisfied, a draft registration is developed in accordance with appropriate State and Federal statutes, regulations, rules, guidance, and policies to protect public health and the environment from any adverse effects from the beneficial land application of sewage sludge. Each draft registration and any response to comments is reviewed by the Team Leader (or designee), as well as the Wastewater Permits Section Manager for accuracy and consistency. The registration is signed by the Wastewater Permits Section Manager and forwarded to the Office of Chief Clerk for mailing. The chief clerk mails the approved registration or other decision to the applicant and notice of decision along with the response to comments to any interested individuals.

e. Appeals for Beneficial Use Registrations

An applicant or a person affected may file with the Office of Chief Clerk a motion for reconsideration of the Executive Director's final approval of an application. The motion for reconsideration must be filed within twenty (20) days of the date on which the Chief Clerk mailed to the applicant the signed registration. The decision of the Executive Director, including the issued registration, is not affected by the filing of a motion for reconsideration unless expressly so ordered by the Commissioners. If a motion for reconsideration is not acted on within forty-five (45) days after the date on which the Chief Clerk mailed the signed registration to the applicant, the motion is deemed overruled.

f. EPA Review of Beneficial Use Registrations

EPA review of sludge permits is discussed below in Section D.4.g. and in the MOA. For

registrations, EPA may review a draft registration for beneficial use which would authorize land application of sewage sludge generated in another state. EPA may review other draft registrations upon request. EPA review procedures will follow the procedures specified in the MOA.

g. Registration Elements

The basic elements of a beneficial use registration are the signature page, location and site maps, general requirements, pollutant limitations, schedule of compliance, if applicable, monitoring and record keeping requirements, soil sampling requirements, operational requirements, management requirements, pathogen and vector attraction reduction requirements, reporting requirements and special requirements determined on a case-by-case basis.

h. Registration Terms and Expiration

Registrations for beneficial use are issued for no greater than a five (5) year term and require renewal.

i. Class A Notification Requirements

The TNRCC requires notification from any generator in Texas or any other person who first conveys sewage sludge from out-of-state into the State of Texas who proposes to store, land apply, or market and distribute exceptional quality sewage sludge. Exceptional quality sewage sludge must meet the metal concentration limits in 30 TAC §312.43(b)(3) (Table 3), meet the Class A pathogen reduction requirements in 30 TAC §312.82(a), and meet one of the requirements in 30 TAC §312.83(b)(1)-(8) relating to vector attraction reduction. Upon receipt of a notification or required annual updates of a notification, the TNRCC may review the information on a case-by-case basis and may require specific conditions of 30 TAC Chapter 312 to be met, as described in 30 TAC §312.4(b). The notifications are issued one time and contain no expiration date.

4. SEWAGE SLUDGE ONLY PERMITS

Sewage sludge only permits will be consistent with State and Federal statutes and regulations, rules,

guidance, and policies. The review of these applications by the TNRCC involves several processing steps and coordination among various groups of the agency. The overall sludge only permit process is shown in Figure 5-2 and is discussed below.

TPDES permits will authorize the use and disposal of sewage sludge and will comply with all applicable provisions of Section 405 of the Clean Water Act and will be issued to all POTWs and other treatment works treating domestic sewage as defined in 40 CFR §122.2 (essentially all public and private domestic wastewater discharge permittees). Provisions will be included in such TPDES permits which require compliance with federal sewage sludge regulations as found in 40 CFR Part 503 and all state sewage sludge requirements as found in 30 TAC Chapter 312. These TPDES permits also include sewage sludge processing, blending, and disposal permits that do not allow discharge of a wastewater effluent to waters in the state. If a Federal Facility generates, processes, uses, disposes or land applies sewage sludge, the facilities will be subject to the permit or registration processes described in this program description.

TPDES processing permits will be issued to all treatment works treating domestic sewage, which specifically will include activities where sludge is prepared for final use or disposal. This includes, but is not limited to, persons that change the sewage sludge quality, surface disposal owners/operators, and incinerator owner/operators.

a. Application Review for Administrative Completeness

All sewage sludge permit applications received by the Sludge and Transporter Review Team are reviewed for administrative completeness. This review is completed within fourteen (14) calendar days of the receipt of an application unless the application is incomplete and additional information is requested. If more information is necessary, the applicant has up to thirty (30) days to respond. When the application is administratively complete, a Notice of Receipt of Application is prepared by the Sludge and Transporter Review Team and submitted to the Office of Chief Clerk for mailing to affected landowners, county, State, and Federal officials, and other interested persons. The purpose of

this notice is to provide early notification to persons who may potentially be affected by the proposed activity. This public notice is not a notice of draft permit and is not required under the NPDES program requirements.

A copy of the application is sent to the appropriate Region Office. Depending on available resources Region personnel may conduct a site assessment for new, amendment or renewal permit applications to verify that the information submitted in the application is correct and provide central office staff with additional information regarding the application. If a site assessment is completed, it is forwarded to the Sludge and Transporter Review Team and becomes part of the technical review of the application. Any deficiencies noted as a result of the site assessment are addressed prior to drafting of the permit.

Sewage sludge surface disposal permit applications are forwarded to the Groundwater Investigations Team in the Ground Water Assessments Section of the Water Quality Division for a detailed ground water impact review. Once the review is complete, a determination of groundwater impact is forwarded to technical staff for consideration.

b. Technical Review and Draft Permit Development

Technical review and preparation of a draft permit is required to be completed for all permit applications (new, major amendments, minor amendments, renewals) within 105 calendar days of declaring an application administratively complete. The 105 day deadline can be extended if the application is not technically complete and additional information is requested by the staff permit writer in accordance with 30 TAC §281.20.

c. New Source Determinations

Applications for new or amended permits will be reviewed initially to decide if a New Source determination is necessary. The State will make the necessary New Source determinations in accordance with 30 TAC §305.534. EPA may assist the TNRCC when necessary to assess the impact

of the New Source on the environment. Because a TPDES permit is not a Federal action, applicants will not be required to submit Environmental Impact Documents or Environmental Impact Statements to the TNRCC for review. In addition, the State will not publish public notice of New Source determinations.

d. Variance Request Determinations

Applications will also be reviewed to determine if any variances under Sections 301 or 316 of the CWA have been requested. The following CWA variances will be reviewed and either denied or approved by the State in accordance with the applicable Section of the CWA, as specified in 40 CFR Part 125.

301(i)- Extension of Compliance Dates

301(k)- Innovative Technology

e. Class I Sludge Management Facility Determinations

The TNRCC will make a determination or a redetermination on classifying permit holders as Class I sludge management facilities, as necessary, in accordance with EPA classification procedures.

f. TNRCC Review of Draft Permits

Once all the technical information has been received and reviewed, a draft permit is developed in accordance with appropriate State and Federal statutes, regulations, rules, guidance, and policies to protect public health and the environment from any adverse impact from the use and disposal of sewage sludge or domestic septage. Each draft permit is reviewed by the Team Leader of the Sludge and Transporter Review Team (or designee), as well as by the Wastewater Permits Section Manager for accuracy and consistency.

The draft permit is then mailed to the applicant with a fourteen (14) day comment period. New permit applications, permit amendment applications, and renewal applications of all Class I Sludge Management Facilities are scheduled concurrently for a TNRCC Executive Review Committee (ERC).

The ERC includes representatives from the Standards and Assessment Section, Enforcement Division, Wastewater Permits Section, appropriate Region Office, and Legal Division. The purpose of the ERC is to coordinate agency action on permit applications. Draft renewal permit applications which are not classified as Class I sludge management facilities are not reviewed by the ERC. Comments to the draft permit by the applicant and/or ERC will be evaluated and the draft permit will be revised as necessary.

g. EPA Review of Draft Permits

After completion of the process of receiving management comments and addressing comments from the applicant, a draft permit is then filed with the Chief Clerk's Office. Simultaneously, any draft sewage sludge permit and corresponding file information subject to EPA review are also mailed to EPA. Public notices will be prepared and mailed to the applicant with a copy of the public notice also mailed to EPA at the same time. Please refer to the MOA, Sections IV.C. and D., for a complete description of EPA review procedures and state and federal agency coordination that occurs as TPDES permit applications are processed by TNRCC.

h. Public Notice

The TNRCC shall prepare a public notice as required in 30 TAC Chapter 39 for draft permits. For public notice of all new, renewal, and major amendment applications, such notice will be mailed to the applicant with instructions to cause the notice to be published in a newspaper regularly published and generally circulated within the county and area wherein the proposed facility and discharge is to be located, and within each county and wherein persons reside who would be affected by the facility or proposed discharge. The notice shall be mailed concurrently to EPA, U.S. Fish and Wildlife Service, the State Historical Preservation Officer (SHPO), the Advisory Council on Historical Preservation, Texas Historical Commission, an affected State, the U.S. Army Corps of Engineers, National Marine Fisheries Service (for discharges to coastal or estuary areas, or territorial seas), any industrial user identified in the permit application of a publicly owned or privately owned treatment works, the

designated 208 planning agencies, and other persons on the State mailing list or who in the judgment of the TNRCC may be affected. Personal service or electronic transfer may be substituted for mailing if agreed upon by the TNRCC/EPA permit program managers. The public comment period for draft permits is thirty (30) days. Additionally, for new and major amendment applications, affected landowners named in the permit application will receive mailed notice of the application when it is declared administratively complete and additional mailed notice after the draft permit has been filed with the Commission's Chief Clerk. The contents of all notices prepared by the TNRCC will include at a minimum those items specified in 30 TAC §39.11.

i. Public Comments, Hearings, Issuance, and Appeals

The process for public comments, hearings, issuance and appeals is the same as industrial and municipal wastewater permits identified in Chapter 3, Sections I.C.6. - 8..

5. Permit Elements

The basic elements of a permit are the signature page, pollutant limitations, management practices, operational standards, standard permit provisions, pathogen and vector attraction reduction requirements, monitoring and record keeping requirements, reporting requirements and other conditions applicable to the facility. The signature page includes the permittee name, permit number, a description of the facility and its location. Any schedule of compliance shall require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA. TNRCC sewage sludge permits are issued for a maximum term of five years, after which the permittee must renew the permit.

Standard provisions will be included with each permit. The standard provisions will include statutory and regulatory requirements as specified in 30 TAC Chapters 305 and 312, including §§305.122(a), 305.125, 305.126, 305.127(b), 305.531, 305.534, and 309. Permits generally contain several Other Conditions/Other Requirements that are determined on a case-by-case basis.

Permit packages will also include a Fact Sheet for all sludge permits as specified in 40 CFR part

501.15(d)(4) and a Statement of Basis for other facilities. The Fact Sheet will contain, as a minimum, the information as required in 30 TAC §281.21(c).

6. Sewage Sludge Partial Inventory

An inventory of all beneficial land use registrants and sewage sludge only permittees is included in Appendix 5-C. An inventory of all POTWs and other treatment works treating domestic sewage sludge that are subject to regulations promulgated pursuant to 30 TAC Chapter 312 and 40 CFR Part 503 is included in Appendix 5-D. Appendix 5-D includes three portions:

- a. The reported sludge use or disposal practices for all POTWs in Texas, identified by state and federal permit numbers;
- b. The identification of all POTWs, the location of the treatment facility, and any sludge production which has been reported; and
- c. A printout of all POTWs, mailing address, state and federal permit numbers, type of treatment works (discharge or retention), and other information.

7. Completion of the Sewage Sludge Inventory

The partial inventory satisfies the requirements in 40 CFR §501.12(f)(3)(i) for state submittal of a partial inventory. Such a partial inventory must include the name, location, and ownership status of POTWs and other treatment works treating domestic sewage and the sludge use or disposal practices of these same entities. TNRCC will complete the entire inventory by no later than five (5) years from the date of program assumption. The plan for completion of the inventory includes the following components:

- a. Receipt of annual reports from all POTWs and other treatment works treating domestic sewage and data entry of sludge production information into a database (year one through four).
- b. Entry of actual sludge use and disposal practice information into a database after review of permit application and during field inspection information (year one through four).

- c. In year five, compilation of reports listing for each POTW and other treatment works treating domestic sewage the required inventory information specified in 40 CFR §501.12(f)(1). This information will include the name, location, ownership status; sludge use and disposal practice(s); NPDES, UIC, Clean Air Act, and state permit numbers (if any); and the compliance status.
- d. In year five, compilation of an updated inventory of all sewage sludge disposal and use sites pursuant to 40 CFR §501.12(f)(2), updating the information in this application in Appendix 5-C;
- e. Final submittal of the sewage sludge inventory by no later than five years from the date of program assumption.

8. Co-disposal of Sewage Sludge in Municipal Solid Waste Landfills

Sewage sludge co-disposed in municipal solid waste landfills is regulated by 30 TAC Chapter 330 and 40 CFR Part 258. The permitting of municipal solid waste landfills is administered by the TNRCC Municipal Solid Waste Division in the Office of Waste. All sewage sludge disposed in municipal solid waste landfills must meet the applicable requirements of 30 TAC Chapters 312 and 330 and 40 CFR Parts 503 and 258. Provisions are provided in all domestic water quality permits for the disposal of sewage sludge in municipal solid waste landfills.

E. INSPECTIONS, COMPLAINT INVESTIGATIONS AND ENFORCEMENT

Procedures for inspections, complaint investigations and enforcement actions for sewage sludge management facilities are described in Chapter 6 of the Program Description.